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The EXTENSION ANIMAL HUSBANDMAN



UNITED STATES DEPARTMENT
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WASHINGTON,
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Washington, D. C.

THE EXTENSION ANIMAL HUSBANDMAN

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C. D. Lowe, Senior Extension Animal Husbandman,
K. F. Warner, Senior Extension Meat Specialist.

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ACTIVITY IN "BETTER SIRES--BETTER STOCK" CAMPAIGN

By D. S. Burch, in Charge of Public Information,
Bureau of Animal Industry, U. S. Department of Agriculture.

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An educational campaign for livestock improvement under the slogan "Better Sires--Better Stock," has been sponsored by the U. S. Bureau of Animal Industry since 1919. The essential purpose is to enlist public interest in the use of superior purebred sires. Most of the active field work has been conducted by county agricultural agents and State livestock specialists.

Because of agricultural-adjustment activities and other emergency duties which have so largely occupied the time of extension workers in recent years, the Department of Agriculture permitted the better-sires campaign to "run on its own momentum," so to speak. Nevertheless, the campaign has been in continuous operation and although not stimulated by press material, reports, or other means, it is still apparently familiar to many extension workers who have sent in the names of purebred-sire users for enrollment. The Bureau has also continued to supply interested persons with enrollment sheets, outlines of scrub-sire trials, and other material found to be useful in stimulating public interest in the use of purebred sires of high quality. The customary certificates of recognition and the purebred-sire barn signs, resembling a metal tablet, have been issued to persons who signed enrollment sheets and transmitted them, through an extension worker, to the Bureau.

Summary of Progress to March 15

According to records of the Bureau of Animal Industry, the progress of the campaign to March 15, 1937, may be summarized, briefly, as follows:

Persons enrolled, signifying that they use purebred sires exclusively for all classes of livestock	18,323
States in which participants reside	48
Counties having 100 or more participants	47
Counties free from all grade and scrub bulls:	
Union County, Kentucky	
Craig County, Virginia	
Russell County, Kentucky	
Taylor County, Kentucky	
Counties free from grade and scrub dairy bulls:	
Gaston County, North Carolina	
Wasatch County, Utah	
County free from grade and scrub boars: Taylor County, Ky.	

Although, as previously stated, this campaign has been relatively inactive in the last few years, extension workers in 25 counties in 6 States have submitted 495 enrollment sheets during the so-called emergency period. The county from which most enrollments were received was St. Louis County, Minnesota, 168 new members participating. This activity was sponsored largely by Roy A. Nelson, dairy specialist. The second best record is that of Tuscola County, Michigan, with 110 enrollments. The third most active county was Madison County, New York, with 103. Most of the other enrollments were received from scattered areas.

Counties having 100 or more enrollments up to March 15, 1937, are as follows:

County	:Persons : :enrolled:	County	:Persons : :enrolled:
New Haven, Conn.....	747	Belmont, Ohio.....	146
Union, Ky.	642	Lamoille, Vt.	146
Pulaski, Va.	592	Orange, Va.	141
Rockingham, Va.	384	Laurens, S. C.	134
Greene, Ohio	360	Webster, Nebr.	123
Oldham, Ky.	258	Columbiana, Ohio	122
Upshur, W. Va.	241	Crittenden, Ky.	117
Hardin, Ohio	236	Boone, Ky.	115
Addison, Vt.	231	Todd, Ky.	115
Defiance, Ohio	229	Caledonia, Vt.	114
Miami, Ohio	222	Nance, Nebr.	111
Grayson, Va.	213	Henry, Ohio	111
Orange, Vt.	199	Pocahontas, W. Va.	110
Fayette, Ky.	198	Tuscola, Mich.	110
Kittitas, Wash.....	198	Breckenridge, Ky.	109
Windsor, Vt.	183	Christian, Ky.	106
Coshocton, Ohio	177	Larue, Ky.	106
Greeneville, S. C.	176	Alfalfa, Okla.	103
St. Louis, Minn.	171	Graves, Ky.....	102
Campbell, Ky.	169	Stafford, Va.	100
Madison, N. Y.	169	Dodge, Nebr.	100
Hancock, Ohio	158	Lewis, W. Va.	100
Guernsey, Ohio.	157	Carroll, Ky.	100
Orleans, Vt.	148		

In connection with the foregoing table, it is recognized that many other counties and localities are noteworthy for purebred-sire activities. The figures opposite each county in the list, however, show the number of persons who have filed with the United States Bureau of Animal Industry declarations that they will use meritorious purebred sires exclusively in the breeding of all classes of livestock, including poultry.

Supply of Purebred-Sire Literature Being Replenished

As a means of encouraging the wider use of purebred sires the U. S. Department of Agriculture has issued a variety of posters, bulletins, circulars, motion pictures, and lantern slides. The material contains evidence of the practical benefits from breeding improved livestock. Some of the older material is now undergoing revision and the supplies of enrollment sheets and barn signs, which are approaching exhaustion, are to be replenished. Extension workers are requested not to promise delivery of barn signs to purebred-sire users prior to about May 15. This is the estimated time that delivery of the latest order is expected, the present supply being almost exhausted. The supply of certificates is apparently adequate for prospective needs.

Reports of Local Activities Invited

The Bureau welcomes accounts of progress in livestock improvement throughout the country, but particularly welcomes reports from county agents and other extension workers concerning counties that are entirely free from grade and scrub sires of any species, also reports on the continued freedom of counties previously announced. It is believed that there are many localities in which progress in livestock improvement may be hastened by the "Better Sires-Better Stock" method at little or no expense to those concerned. Government literature dealing with this work is furnished to extension workers without cost.

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THE DEMONSTRATION WAY

I'd rather see a lesson than hear one any day.
I'd rather you would walk with me than merely show the way.

The eye's a better teacher and more willing than the ear.
And counsel is confusing; but example's always clear.

The best of all the teachers are those who live their creeds,
For to see good put in action is what everybody needs.

I can soon learn to do it if you let me see it done.
I can watch your hands in action, but your tongue too fast may run.

And the counsel you are giving may be very fine and true,
But I'd rather get my lesson by observing what you do.

From Agricultural Leaders' Digest, Nov. 1936.

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"Instead of bemoaning the fact that we can't have all that we want, most of us should be thankful we don't get all we deserve."

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SELLING LIVESTOCK BY GRADE

By L. I. Case, Specialist in Animal Husbandry,
North Carolina State College of Agriculture.

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It is believed that the selling of livestock by grade offers one of the greatest incentives for livestock improvement that has ever been tried in the extension field. North Carolina was by no means the first State to try this method of selling nor has she gone far enough to do any especial boasting but the system apparently has so many merits that some of our observations and experiences may be of value to animal husbandmen in other States.

Selling Lambs by Grade

Following the lead of Virginia and other early lamb producing States, we started in 1934 to grade and ship lambs cooperatively. At that time no differentiation was made between the Good and the Choice grades but ewe and wether lambs falling in either of these grades were marked with a red circle on the back of the head. Good and Choice grade ram lambs received the same mark but were also given a stripe across the rump. Medium grade lambs received no marks except the rams which were striped on the rump. The Common and Cull grades were combined and given a distinctive mark. This was usually a number 3 on the back.

In 1935 and 1936 the same system of marking was used except that the Choice and Good lambs were marked separately, the former being given a blue circle and the latter the red circle. Branding irons and wool paint were used for marking the lambs. This particular system of marking is probably no better than some other, although there should, of course, be a definite understanding between the shipper and the commission firm, or the packer in case the lambs are shipped direct.

Our system of taking up lambs varies with the section of the State from which we are shipping. In the mountain counties where livestock scales are plentiful an itinerary is made out in advance and producers are notified the hour of the day to have lambs at the scales. Upon receipt, each man's lambs are graded, weighed, and marked and a scale ticket is made out in triplicate, one copy going to the owner, one to the commission firm, and one is retained by the county agent or local association manager. A truck follows the graders and the lambs are picked up and hauled to the shipping

point. In eastern North Carolina where the sheep population is smaller, and scales less plentiful than in the western part, all lambs are brought to a central point for grading and weighing.

When the lambs reach the market they are sold by grade as indicated by the marks. The drift and expenses for freight, yardage, commission, etc., are prorated and each owner is sent a check for his lambs. To illustrate the price differentiation for various grades, a shipment made in May 1936 sold as follows at Jersey City: Choice lambs, \$14.25 per hundredweight; Good, \$13.75; Medium, \$13.00; and Common, \$8.50.

Lambs sold in this way are netting the producers more money than when they were sold to a dealer at the farm. This is especially true of the better grade lambs for the country speculator usually pays a flat price for all lambs regardless of grade, although he does place a minimum weight limit on them.

Grading Teaches Production Methods

The best part of this way of selling lambs is that it creates an incentive to produce better lambs and also indirectly teaches better production methods. Where lambs have been handled under this plan for more than one year a noticeable improvement in quality is evidenced. Records of lambs shipped from our mountain counties in 1935 showed 2.5 percent Choice, 65.8 percent Good, 25.4 percent Medium, and 6.2 percent Common and Cull as compared with 11.2 percent Choice, 66.9 percent Good, 20.1 percent Medium, and 1.8 percent Common and Cull in 1936. Improvement is being brought about through increased use of purebred rams of the right type, better feeding, more docking and castrating, and more attention to parasite control.

Buying Feeder Cattle by Grade

A start was made last fall toward introducing the use of U.S. Standard grades in the transfer of ownership of feeder cattle in our mountain counties. The nomenclature that has been in vogue in this area for many, many years is "Top Cattle" and "Good plain cattle." Top cattle as near as one can figure it out includes Choice, Good, and Medium grades and occasionally a Common steer is included in this grade if he happens to be of good color and the buyer is not watching too closely. "Good plain cattle" takes in about all the rest unless it may be Jerseys and other strictly dairy-bred animals.

This past fall help was given in the purchase of over 600 head of feeder cattle. They were not actually bought at a different price

for each grade, but the U. S. Standard grade on most of the steers was named and where possible, grading demonstrations were held in order that the producer, the dealer, and the buyer all had an opportunity to be made familiar with the grades. Buyers who participated state that they obtained better and more uniform cattle this year than usual and it is hoped that another year will see further and more definite use made of the U. S. Standards in connection with feeder cattle transactions. This will, we feel, result in more attention to breeding, feeding, and other improved production practices in cattle as it has already done in sheep.

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NONRAIL RECEIPTS OF LIVESTOCK, 1936

The following table gives the "drive-in" (nonrail) receipts of livestock in 1936 at 17 principal markets, also the percentage such receipts were of the total receipts. Total nonrail receipts at the listed markets made up 54.85 percent of the total receipts at these markets, the highest on record.

<u>Market</u>	<u>No. head "drive-ins"</u>	<u>Percentage of total receipts</u>
St. Paul	3,058,871	59.40
Omaha	3,027,380	59.91
East St. Louis.....	2,943,266	63.09
Chicago.....	2,926,967	30.48
Sioux City.....	2,512,248	78.02
Indianapolis.....	2,405,833	95.60
Kansas City.....	1,601,525	42.18
St. Joseph	1,513,264	63.54
Ft. Worth.....	1,464,965	72.77
Cincinnati.....	1,124,209	70.49
Oklahoma City.....	1,106,831	91.44
Milwaukee.....	790,074	60.22
Wichita.....	667,307	84.32
Sioux Falls.....	660,764	95.22
Louisville.....	590,401	83.27
Denver.....	502,860	12.31
Portland.....	<u>207,825</u>	<u>33.41</u>
Total	27,104,590	54.85

Based on total reported receipts at the above markets, the percentage of each class of livestock listed as "drive-ins" was as follows - Hogs, 70.74 percent; calves, 67.27 percent; cattle, 56.49 percent; and sheep and lambs, 30.57 percent.

Complete data on this subject may be obtained from the U. S. Bureau of Agricultural Economics, Washington, D. C.

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LIVESTOCK AND MEAT CONFERENCES
AND DEMONSTRATIONS IN CALIFORNIA

By L.H. Rochford, Extension Specialist in Animal Husbandry,
California Extension Service.

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A series of combined livestock grading and meat selection, preservation, and utilization meetings were held in California last fall to provide county, home, and club agents with a background of information and method that they could take back and reproduce in their counties. Surprisingly enough, the home agents reported the comparisons of live animals as the most illuminating feature of the program. Young cattle and old cattle, fat lambs and thin lambs, little pigs and mammoth hogs seen in the yard and reseen, in counterpart, on the cooler rails dramatized the effect of production practices, the need for various cooking methods and the possibility for economy through the judicious buying and use of meat.

Many California farmers buy much of the meat their families use and the home agents reported an exceptional interest in factual meat programs given before community home-makers clubs. Miss Hilda Faust, extension nutritionist, has summarized available information on the place of meat in the diet, out and quality in relation to cooking method, buying at retail, special recipes, etc. It was to help these home agents and their local leaders to visualize "choice" and "common" "fat" and "thin" "rib" and "chuck" that Miss Faust and the home economics workers were interested in having these meetings held.

The county and club agents wanted the opportunity to check their judgments of live animals and carcasses against official grades and carcasses, the better to record the effect of various production practices and the progress of 4-H livestock projects. Both men and women desired basic information on the preservation of meat by either curing or freezing.

Two of the five meetings were held at the stockyards in South San Francisco and Los Angeles. Through the cooperation of W. E. Schneider of the Federal livestock market news service and Swift and Co., and Armour & Co. at San Francisco, cattle, sheep and hogs representing standard market classes and grades were selected and placed in separate pens. These animals were discussed and priced for the group just previous to a similar discussion and pricing of corresponding carcasses on the rail in the cooler. Cuts were made from two grades of beef to illustrate the difference in appearance

between the grades and to compare the cuts. After lunch, the group moved to a room in the Exchange Building where meat in the diet, the preservation of meat on farm and ranch, and methods of meat utilization were discussed.

The program at Los Angeles was quite similar to the one at San Francisco, due to the help of E. O. Swedberg, official meat grader for the Bureau of Agricultural Economics, F. O. Kingsbury of the Federal market news service, and the cooperation of the Gudahy Packing Co.

At Salinas, of "lettuce bowl" fame, and at Red Bluff the local stockmen's associations' members and their wives organized a regular all-day community get together, the former in a natural wooded park, the latter at a consolidated school. Cutting, preserving and using meat on the farm were the main subjects discussed and demonstrated with these groups, with meat linked into the production and food utilization programs of both the women's and men's projects.

Nearly 100 county and home agents and project leaders and 250 others attended these demonstrations which did not include 1,000 4-H club members for whom regular meat demonstrations were given during their congress at Davis.

K. F. Warner, Extension Meat Specialist of the U. S. Department of Agriculture, assisted Miss Faust and the Livestock Specialist throughout this series of meetings. Mr. Warner joins the California specialists in the belief that, though conducted primarily for extension workers and project leaders, these conferences served to stimulate the further growth of interest in the entire problem of producing, marketing, merchandizing, and utilizing livestock and meat products in California. In several counties the extension agents have arranged for field days wherein the various phases discussed and demonstrated at these regional conferences will be emphasized for local application.

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NEW U.S.D.A. FILM-STRIP PRICE LIST AND CATALOG

Under date of February 1, 1937, a new price list of film strips prepared by and available through the United States Department of Agriculture has been issued.

Under the heading of animal husbandry 26 different series of film strips are listed as available. Copies of the list may be obtained by addressing Extension Service, United States Department of Agriculture, Washington, D. C.

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"Imagination was given to man to compensate him for what he is not; a sense of humor to console him for what he is."

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THE MICHIGAN SHEEP PROGRAM

By Delmer H. LeVoi, Extension Specialist in Animal Husbandry,
Michigan Extension Service.

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The Michigan sheep program is so organized that work is conducted with producers of native lambs, with the purebred breeders, with commercial lamb feeders, and with 4-H club members. Meetings, demonstrations, tours, and individual and group projects are ways in which these different groups are served. We have found, however, that work with the individual through personal projects perhaps gives the best results. It has also been our experience that single-practice-method demonstrations centered with one individual, while others observe are not so effective as meetings or demonstrations centering around groups where all take part. In other words, learning by doing is much more effective than learning through seeing it done.

The program of work outlined for the State is dependent upon the county agricultural agents who keep things "pepped up" in the counties. One phase of our program is known as the Michigan native lamb improvement project and it is offered to the agricultural agents as an effective method of getting certain practices performed at definite times of the year. This project features the following practice recommendations: (1) Drenching the flock at monthly intervals, but not less than three times during the grazing season, and giving lambs the first drench at one month of age; (2) dipping the flock annually, preferably one month to six weeks after shearing; (3) using good purebred rams of the desired type; (4) docking all lambs and castrating all market lambs before two weeks of age; (5) supplying the ewes and lambs with plenty of good succulent pasture throughout the grazing season, (6) weaning lambs at three to four months of age and placing them on better pastures and feeding grain if faster gains are required; (7) sorting and grading market lambs and aiming to sell only Choice individuals.

Forty-two agricultural agents enrolled their counties in this project in 1936 and furnished a report showing the progress of the adoption of these practices in their counties. A larger number of demonstrations and meetings were scheduled in these 42 counties as compared with counties where the program was not given as much attention. A series of seven franked cards were prepared in this office and a sufficient number mailed to each agent to take care of all sheepmen in his county. The cards were so prepared that the county agent's signature appeared at the bottom, which, of course, added a personal touch. Each series of cards carried the practice recommendations that were timely for that season of the year.

Other important activities conducted in connection with our sheep program are as follows: The Wolverine lamb production project, the ram truck, the Marlette ram sale, community dipping and drenching demonstrations, county and State wool shows, sheep-breeder and lamb feeder tours, purebred-ewe consignment sales, cooperative exhibits of lambs, sheep, and wool at the International Live Stock Exposition, lamb-grading and ewe-culling demonstrations, and 4-H club work, which includes schools, meetings, tours, and demonstrations. Meetings pertaining to these activities as well as those of general nature are also conducted with both 4-H club members and adults. In carrying on these different phases of work, considerable help has been given by the following groups: The Michigan Purebred Sheep Breeders' Association, the Michigan Co-operative Wool Marketing Association, the State Department of Agriculture, the Michigan Farm Bureau, and the agricultural engineering and farm management departments of the college.

In conducting the program, we are finding out our best source of teaching information is the Wolverine lamb production project. From the cooperators in this project we get actual accomplishment data from sheep producers with conditions similar to those we are trying to reach. Owners of flocks consisting of at least 20 ewes with which purebred rams are in use are eligible to enroll. Comparative results are based on the average number of pounds of lamb produced per ewe in 135 days. Larger flocks are given handicaps over smaller flocks. Studies of the data show that the individuals who make the best records follow the best practices. They are also the ones who are first to adopt new practices. These co-operators also give considerable help through their local leadership in arranging group meetings and demonstrations.

Since this project was started in 1930, more than 1,200 sheepmen have enrolled and the average production has increased each year. In 1930 an average of 87.88 pounds of lamb was produced per ewe for the flocks completing the project, while in 1935 this increased to 108 pounds. From information gathered at the time of summer visits to the flocks, yearly summaries are prepared on the management practices of the entire group enrolled, with a separate summary for the high ten producers. A study of these summaries clearly shows that the percentage of cooperators who drench at monthly intervals during the summer, who dip annually, wean their lambs at three-and-a-half months old, flush their ewes, feed legume hay and use improved types of equipment, such as better feed racks, covered salt boxes, movable lamb creeps, has shown a marked increase each year. The highest record ever made in the project was that of Harry Wright, of Standish, whose flock of 26 grade Oxford ewes in 1935 produced an average of

179 pounds of lamb per ewe in the 135-day period. During the past four years Mr. Wright has made a consistently high record, never placing below fifth. The same also applies to Walter Scott, of Sandusky, winner of the contest in 1936. Records made by these men shatter the opinion of many that high production cannot be maintained over a period of years. These men are consistent in their management practices and that perhaps explains their success.

Special recognition is extended to the men who do the best job by providing that the owners of the ten highest ranking grade flocks and of the ten highest purebred flocks may each exhibit pens of 3 ewe lambs at the Farmers' Week show at the college, where they are especially featured. Nearly 50,000 people attended this show this year. The Michigan Farmer presented the 1936 champion flock-master with a special trophy and the purebred sheep breeders' association, the Michigan Live Stock Exchange, and the State Department of Agriculture also provided prizes to the winners.

We are learning that this project is attracting the interest of many boys who have just concluded their 4-H club work. This project is also useful in reaching sheepmen who are scattered in sparsely-sheep-populated counties and, therefore, are difficult to contact through meetings and demonstrations.

The ram truck project may be considered personal service in nature but through its operation last fall more than 150 rams were delivered to purchasers who had ordered them in advance. At each stop made by the truck, educational demonstrations and discussions are conducted. Rams of different breeds from the truck are used in these demonstrations and talks. Lamb grading is also featured at each of the stops by showing the part played by good purebred rams in producing better lambs.

The Michigan purebred sheep breeders' association cooperates in this work by furnishing the truck, which was a double-deck semi-trailer outfit with capacity for 80 rams. The truck schedule lasted seven weeks in the fall and a fresh load of rams was taken out at the beginning of each week. The sheep barn at the college was used as a concentration point for the rams. Interest in the program is shown by the fact that over 550 rams, including approximately 150 for which advance orders were given, were placed at the various stops the truck made this past fall. The rams placed ranged in age from lambs to nine-year-olds and sold for an average of \$34.80 per head. Most of the better rams, sold for use on grade flocks, were purchased by sheepmen enrolled in the Wolverine lamb production project. Sixty of the rams that brought \$45 or more per head were purchased by

owners of these flocks. The rams consigned were inspected during the early summer. Stops were made in 52 counties and the truck traveled 2,300 miles in covering the route. A few over 4,500 people attended the meetings and demonstrations. This traveling ram truck is now recognized as an institution in the State and more stops are being requested each year.

One of the most successful and popular projects we now conduct is the community dipping and drenching set-ups and demonstrations. Although originally considered as a demonstration effort they have developed into permanent community projects which are used annually under the supervision of local leaders in the community with the cooperation of the agricultural agents. Community associations usually are formed around these set-ups with as many as 20 or more members treating their sheep in a day's time. The set-up consists usually of a concrete dipping tank along with the yards and sorting chutes needed to make the dipping and drenching work go smoothly. When 500 sheep and lambs are treated in one of these set-ups, the cost of material is 1 1/2 to 2 cents per head for both drenching and dipping. Whenever 1000 sheep are treated the cost is about 1 cent per head.

A summary of the sheep treated by such cooperative effort in 1936 shows that 334 of these community set-ups were in operation and that 202,000 sheep were treated. At the largest of these demonstrations 2,380 sheep were treated in one day for 32 owners. The cash outlay for constructing the dipping vats runs from \$15 to \$25 and when permanent yards also are built the cost for the yards and tank usually runs from \$45 to \$70.

In a few counties portable vats owned by the county are used for dipping but these gradually are being replaced by the concrete vats, as they are more convenient. In some localities custom dipping with a movable outfit which goes from farm to farm is best adapted especially where flocks are scattered. Otherwise, Michigan sheepmen prefer the community set-up as the cost of treating is much less, the job is done easier, and the community "bee" idea has its appeal.

Some of our sheep work is of such a nature that it is impossible to measure immediate results. Such may be said of the series of wool and shearing schools conducted each year. They are usually run on a district basis and at each school 4-H club members are given training in shearing. E. S. Bartlett, of Chicago has assisted at the schools since they were started six years ago and has charge of the shearing work. In 1936, 130 4-H club boys received individual instructions at these schools. The winners in the beginner's class and in an experienced class are chosen to represent their counties at the 4-H sheep shearing contest held at the State Fair.

Many of the boys who received training in shearing in the early schools are now doing custom shearing and are considered among the best shearers in their districts. They are ideal for this work as they have had training in the proper care, preparation, and grading of wool, as well as on other sheep-production problems.

Each year several lamb-feeders' and sheep-breeders' tours are conducted. Notices of the tours are sent to sheep raisers, breeders, and feeders of lambs. Nine to twelve stops are made on each tour and they are so arranged that different systems of feeding and management are followed at the stops made. Discussions are conducted at each stop with the owner in charge. Production practices which appear to be bringing the best results are pointed out. Seven county lamb-feeder tours and two district sheep-breeder tours were held last year.

In addition to the ram sale held at Marlette, an auction sale of purebred ewes is sponsored annually. This sale was held at the time of Farmers' Week this year and the 47 ewes sold brought an average price of \$42.66, with the top ewe selling for \$130. Educational demonstrations and discussions are held in connection with both these sales.

The additional work with 4-H Club members pertains to individual help in selecting breeding and feeding stock, in holding educational meetings, demonstrations and tours for them, and in assisting them at the different State and county shows. We are very proud of our success in working with 4-H Club members as they usually develop into outstanding livestock producers. Some of the best flocks of sheep in the State today were started as 4-H Club projects. A number of Michigan's leading exhibitors at the recent Chicago "International" were previous 4-H Club members and this was especially true in Oxfords.

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REGIONAL LAMB CONFERENCE

On February 16, 1937, a group of some 30 persons interested in the grading and marketing of spring lambs attended a conference at Bristol, Va. The following States were represented by extension and college workers, State marketing service officials, and producers: Virginia, West Virginia, Tennessee and North Carolina. The conference was called by the U. S. Bureau of Agricultural Economics. Its primary purpose was to consider ways and means for the use of uniform systems in the grading and marking of market lambs shipped from the region to eastern markets. Unanimous agreement was reached in the adoption of uniform grade groupings based on the recommended U. S. standards, and in the use of the same markings to indicate the different grades and classes. Those in attendance requested similar conferences in the future at which time hope was expressed that other States of the region and particularly Kentucky and Maryland might be represented.

MISCELLANY

Alabama

Twenty-nine litters of hogs were exhibited at the State Ton-Litter Show held at Montgomery, Ala., in September, 1936. The average age of all hogs exhibited was 182 days and the average weight, 215 pounds. The average feed cost per pound of pork produced was 5.6 cents and the average amount of concentrates required for 100 pounds of gain was 350.3 pounds. A majority of the litters were crossbred Duroc-Jersey x Poland Chinas. More than three-fourths of the litters were furnished pasture during the finishing period. This practice not only reduced the cost of gains but also reduced infestation by internal parasites, particularly where temporary grazing crops were used. Plans already have been announced for a similar event at the same point in 1937, as well as for a market-hog show including a litter class at Birmingham in the northern part of the State. --F.W. Burns.

Arkansas

Thirty cold storage plants cured approximately one million pounds of meat for farmers of this State in the 1936-37 season.

--M. W. Muldrow

Indiana

The first Hoosier Ton-Litter Hog Show was held at Indianapolis in September, 1936. Thirty-six litters made up of 341 hogs were exhibited. Only members of the Hoosier Ton-Litter Club were eligible to exhibit. Three classes as follows were provided: Litters made up of pigs averaging from 200 to 225 pounds; litters made up of pigs averaging over 225 pounds; (only 8 pigs per litter were required to be shown in these two classes); and litters made up of all pigs raised in a litter. The basis of award in the third class was 75 percent on greatest weight and 25 percent on conformation, uniformity, quality and condition.

A purebred Hampshire litter won in the first class, while crossbred litters won in the second and third classes. The show proved to be a worthwhile stimulant to ton-litter work in the State.

--J. W. Schwab

The Hoosier Gold Medal Colt Club began its twelfth year with a new high record in the number of members and the number of colts nominated. For 1937 there are 1,235 farmers feeding 1,693 colts in 64 counties of the State as compared with 1,057 farmers feeding 1,487 colts in 55 counties last year. For the first time mule colts have been nominated, three counties entering 23 head. --P. T. Brown.

Kentucky

R. C. Miller, extension sheep specialist for the University of Kentucky went on furlough March 1, for the purpose of looking after personal business interests. W. J. Harris, part-time animal husbandry extension specialist at the same institution has resigned to enter private business.

Maryland

Joseph M. Vial, extension specialist in animal husbandry for the University of Maryland, sailed for Europe on January 25 for the purpose of selecting purebred horses and cattle for various live-stock breeders. Percheron and Belgian horses and Aberdeen-Angus cattle will make up the major part of the importation.

Minnesota

The fourteenth annual 4-H club ton-litter contest was conducted in Minnesota in 1936. Thirty-eight of the 91 enrolled members from 79 counties were successful in producing a ton or more of pork from one litter in 180 days. The average weight per pig for all 38 litters was 221 pounds, and the average number of pigs per litter was 11. The heaviest litter, which contained 12 pigs, weighed 3,406 pounds and was of the Duroc-Jersey breed. Ten of the litters were crossbreds, six were purebreds, and the remainder grades. --H. G. Zavoral

Nebraska

The 1936 data on certain 4-H clubs are shown in the following table:

<u>Kind</u>	<u>Enrollment</u>	<u>Completions</u>	<u>Counties represented</u>
Beef cattle	1,462	1,081	73
Swine	1,137	734	58
Sheep	362	275	36
Work stock	153	102	19
Home meat	85	57	9

--Walter Tolman

New York

Enrollment in 4-H meat animal projects in this State has more than doubled since 1927. In 1936 membership in such clubs totalled 919, of which 494 were in lamb clubs, 353 in swine clubs and 72 in baby beef clubs. In addition there were 20 colt club members.

--H. A. Willman

North Carolina

H. W. Taylor, extension swine specialist for the North Carolina State College of Agriculture, visited Nebraska last fall where he

selected some 17,000 head of feeder pigs for North Carolina farmers. W. W. Derrick, the Nebraska animal husbandry specialist, aided Mr. Taylor in locating the hogs in the drought-stricken areas of the State.

Ohio

Seven hundred and forty-three members located in 53 counties were enrolled in 4-H steer feeding clubs in 1936 as compared with 601 members in 47 counties in 1935. Twenty-four county shows and 7 tours were held in 1936.

Thirty-seven counties had 237 4-H beef breeding project members in 1936, as compared with 223 from 34 counties in 1935.

--L. P. McCann

Pennsylvania

The Keystone State produced 26 ton-litters in 1936. These added to the qualifying litters of the previous 12 years the project has been conducted, make a total of 785 ton-litters produced to date in Pennsylvania. All but eight counties of the State have produced one or more ton-litters in this period.

--L. C. Madison

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MORE SILOS

Temporary silos hurriedly provided under the drought emergencies of 1936 added greatly to the number of such facilities in use. The Iowa State College estimates that Iowa farmers alone built 18,598 silos, with a total capacity of 1,026,600 tons of feed, in 1936. A State-wide survey conducted in Nebraska disclosed that the farmers of that State constructed 12,389 new trench silos in 1936, and that of the total of 41,398 silos in the State, 32,004 were of the trench type. Capacity of individual silos varied from 50 to 5,000 tons. Many other States made similar records last year.

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THE COLOR SCHEME

Each breed of pigs with color bright,
Shows how well they've been bred;
The York and Chester's snowy white,
The Duroc's cherry red.
The Hamp is black with belt of white,
The Tam's a golden red.
The Berk and Poland, black as night,
Are white-tipped feet and head.

--Rudolph Spires Allen.

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CRYSTAL VIOLET HOG-CHOLERA VACCINE

The crystal-violet vaccine for protection against hog cholera is a material originated by the U. S. Bureau of Animal Industry. It is still in the experimental stage and will not be available commercially unless and until further carefully controlled tests indicate its value beyond question although in early trials its protective efficiency was 98.8 percent.

In field tests conducted by the Bureau, pigs susceptible to hog cholera have been injected subcutaneously with from five to ten cubic centimeters of the vaccine. Such pigs when their immunity was tested three weeks later by injections of active hog cholera virus showed high resistance to the disease. In one lot of 207 pigs vaccinated, 202 gave no significant reaction to the injection with hog cholera virus three weeks later. However, when the virus was injected simultaneously with the vaccine, or one week following, no protection was given.

The main advantage promised by the new vaccine over the serum-virus method in controlling hog cholera is in its safety, probably also in the cost of the treatment. Hence, swine growers may hope to have their hogs protected against cholera at less risk and cost than in the past, provided the new vaccine continues to give favorable results.

It is not anticipated that the new treatment will entirely replace the widely used double treatment, for in the light of present knowledge it takes two weeks following crystal-violet vaccination for pigs to become fully immune to hog cholera, while the serum-virus treatment renders immediate immunity. But the new vaccine will appeal to the farmer who wishes to protect each new crop of pigs, as it comes on, as a matter of routine precaution.

The crystal violet vaccine contains no active virus and therefore cannot contaminate premises or otherwise spread the disease, which is a tremendous advantage over the use of virus in the old treatment.

The name "crystal violet" comes from the commercial dye used as the attenuating agent for the virus in the preparation of the vaccine.

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MISSOURI SHEEP PROGRAM RESULTS, 1936

Among the accomplishments in Missouri under the sheep improvement program of 1936 are the following: 700 purebred rams sold at auction; other purebred rams placed, 1,835; sheep treated for stomach worms, 482,600; lambs docked and castrated, 1,110,000; lambs sold on a graded basis, 24,425.

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SALARIES OF ANIMAL HUSBANDRY SPECIALISTS

The table appended below gives certain information regarding the salaries paid full-time specialists in animal husbandry extension work for the fiscal year 1936-37, as shown by the approved budgets for the various States on file in the Washington office of Extension Service.

Animal Husbandry Salaries

<u>Admin. region</u>	<u>No. of specialists</u>	<u>High</u>	<u>Low</u>	<u>Average</u>
Eastern	8	\$4,400	\$3,000	\$3,408.75
Central	26	4,650	2,220	3,344.38
Southern	23	4,200	2,400	3,368.19
Western	<u>9</u>	3,800	2,720	<u>3,145.73</u>
Four regions	66			\$3,333.39

How the foregoing animal-husbandry-specialist salaries compare with the professional incomes of those in other fields of activities may be judged from the data in the two tables which follow:

Specified Profession Incomes*

<u>Profession</u>	<u>Median income</u>
Practicing dentists - - - - -	\$4,094
Engineers (general practitioners) - - -	2,970
Lawyers (general practitioners) - - - -	3,915
Practicing physicians - - - - -	4,552
Ministers (two denominations) - - - - -	2,003
Social workers - - - - -	1,745
High-school teachers and principals - -	2,318
College and university teachers - - - -	2,759
Y.M.C.A. secretaries - - - - -	3,052

*Data largely for period 1927, 1928 and 1929.

Source - "Compensation in the Professions" by Bartlett and Neal, published by Association Press, New York, N.Y.

Land-Grant College and University
Teacher Salaries (Men)

<u>Academic rank</u>	<u>Median salaries</u>
Dean - - - - -	\$5,635
Professor - - - - -	4,139
Associate professor - - - - -	3,284
Assistant professor - - - - -	2,795
Instructor - - - - -	2,087

Source -"Salaries in Land-Grant Universities and Colleges,
1931," by John H. McNeely - U. S. Department of
the Interior, Office of Education Pamphlet No. 24.

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NEW LAMB CLUB PROJECTS

The Volunteer Lamb Club is the name of a new lamb production and marketing club being promoted in Tennessee under the leadership of C. C. Flanery, extension sheep specialist. It is essentially a "master shepherd" project with only a limited number of required practices, the final ranking of participants to be determined largely by the gross returns from lambs and wool. Suitable trophies will be awarded to the high-ranking producers.

The "100 and 8" Lamb Club is the name of a similar project initiated in Kentucky by sheep specialist Miller. Participants are required to use purebred rams, to practice docking and castration and to keep production records. Accomplishment is to be measured on the basis of an average production of 100 pounds of Choice lamb at 120 days of age and 8 pounds of wool annually for each breeding ewe in the flock, from which the name of the club is derived.

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STALLION "AWARDS OF HONOR"

The Horse and Mule Association of America has issued a formula for the certification of draft stallions on the basis of pulling ability, conformation, fertility, and soundness. Owners of animals qualifying will be presented with lithographed "Awards of Honor" which will set out in detail the records made. Further information is available from Wayne Dinsmore, Secretary, 407 South Dearborn St., Chicago, Illinois.

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"In extension work, it isn't what you do for people, but what you do to people, that counts."

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"A depression is a period in which we are compelled to do without what our forefathers never hoped to have."

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ESTIMATED U. S. POPULATION BY AGE

Estimates of the population of the United States as of April, 1935, distributed by age, were released recently by the Bureau of the Census. An excerpt from the release follows:

"A comparison of these estimates with earlier census figures shows, for example, that persons under 16 years of age formed only 17.5 percent of the total population in 1935, as compared with 19.6 in 1930, 21.7 in 1920, and 23.7 in 1900. The decrease in this percentage in the five years between 1930 and 1935 is as great as the decrease in the entire decade from 1920 to 1930, and this, in turn, is greater than the decrease in the preceding 20 years, from 1900 to 1920; and the actual number of persons under 10 years of age in 1935 was less than in 1930 - being 22,339,700 in 1935 and 24,051,999 in 1930. On the other hand, the percentages of the population in the various age groups made up of persons 45 years old and over show a continuous increase from 1900 to 1935. Persons 60 years old and over, for example, formed 9.1 percent of the total population in 1935, as compared with 8.5 percent in 1930, and 6.4 in 1900; and the actual number of such persons was 11,615,900 in 1935 as compared with 10,385,026 in 1930, representing an increase of 1,230,874, or 11.9 percent, in the 5-year period.

"It is evident that the population of the United States is slowly, but persistently, growing older. A convenient measure of the age of a large group of people is the median age, which is the age of the person who would stand in the middle of the series, if the whole number were arranged in order according to age, beginning with the youngest and ending with the oldest. The median age in 1850 was 18.8 years; in 1880 it was 20.9 years; in 1900, 22.9; in 1910, 24.0; in 1920, 25.2; in 1930, 26.4; and in 1935, according to the estimates presented herewith, it was 27.6. This means that in 1850 there were as many persons with age less than 18.8 years as there were with age above that figure; while in 1935 the midpoint in the age series was 27.6, or nearly 10 years higher."

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RECENT PUBLICATIONS

(Only Federal publications are available from Washington. Others listed may be obtained in most instances from the institution or agency issuing them. Do not write Washington for other than U.S.D.A. publications.)

Federal

"Statistical Tables and Maps Showing Progress of Tuberculosis Work Among Livestock in the United States" - U.S.D.A., Bureau of Animal Industry, Washington, D.C. - 12 pages. Nov. 1, 1936.

Federal (Cont'd.)

"Driven-In Receipts of Livestock, 1936" - U.S.D.A., Bureau of Agricultural Economics, Washington, D.C. - 28 pages of tables. Mimeo. Jan. 1937.

"The Farm Outlook for 1937" - U.S.D.A., Bureau of Agricultural Economics, Washington, D.C. - Misc. Pub. No. 255. 44 pages, 18 illus.

"Looking Ahead on Agricultural Policy" - U.S.D.A., Bureau of Agricultural Economics, Washington, D.C. - 20 page mimeo. 8 tables. Dec. 1936.

"The Sheep and Lamb Situation," "The Beef Cattle Situation," "The Swine Situation" - Three new mimeographed circulars issued monthly by the Bureau of Agricultural Economics, U.S.D.A., Washington, D.C.

"U. S. Graded and Stamped Meat" - U.S.D.A., Bureau of Agricultural Economics, Washington, D.C. - Leaflet No. 122. 8 pages. illus.

"United States Livestock Report: Jan. 1, 1937" - U.S.D.A., Bureau of Agricultural Economics, Washington, D.C. - 14 page mimeo.

"U. S. Grades of Slaughter Lamb" - A wall chart issued by the Bureau of Agricultural Economics, U.S.D.A., Washington, D.C. - illus.

"Extension as a Profession" - U.S.D.A., Extension Service, Washington, D.C. - Circular 252. 9 page mimeo. Dec. 1936.

"Cooperative Marketing of Range Livestock" - U.S.D.A., Farm Credit Administration, Washington, D.C. - Bulletin No. 7. Aug. 1936. 134 pages. 43 illus.

"Western Cattle and Sheep Areas" - U.S.D.A., Farm Credit Administration, Washington, D.C. - Cir. No. C-103, Sept. 1936. 101 pages. 28 illus.

"Growing and Feeding Grain Sorghums" - U.S.D.A., Bureau of Plant Industry, Washington, D.C. - Farmers' Bulletin No. 1764, Dec. 1936. 46 pages. 33 illus.

"Soil Defense in the Piedmont" - U.S.D.A., Soil Conservation Service, Washington, D.C. - Farmers' Bulletin 1767, Jan. 1937. 63 pages. 31 illus.

"Cook Pork and Its Products Thoroughly" - U.S.D.A., Bureau of Animal Industry. Series A. I. 39. Feb. 1937. 4 pages.

State

"Work Stock - Care and Production" by M. P. Jarnagin - Extension Service Bulletin 461 - Georgia State College of Agriculture.

State (Cont'd.)

"Pasture Improvement and Management" by Burlison, Rusk and Pieper - Illinois Extension Service Circular 465. Dec. 1936. 50 pages. illus.

"Meats" by Eva I. Buel - Purdue (Indiana) Extension Service Bulletin 214. Jan. 1937. 12 pages. illus.

"Buying and Feeding Lambs" by C.W. McDonald - Iowa Extension Service Circular 230. Nov. 1936. 24 pages. 8 illus.

"Genetic Aspects of the Danish System of Progeny-Testing Swine" by Jay L. Lush - Iowa Experiment Station Research Bulletin 204. 15 tables. 196 pages. 27 illus. Aug. 1936.

"Temporary Silos" by Beresford and Virtue - Iowa Extension Service Circular 202 (Rev.). Sept. 1936. 16 pages. 15 illus.

"Phosphorus Requirements in the Ration of Growing Pigs" by Aubel, Hughes and Lienhardt - Kansas Experiment Station Technical Bulletin 41. June 1936. 86 pages. 23 illus.

"Ewes for Commercial Flocks" by Richard C. Miller - Kentucky Extension Service Circular No. 286. Sept. 1936. 15 pages. 12 illus.

"Rams for Commercial Flocks" by Richard C. Miller - Kentucky Extension Service Circular No. 285. June 1936. 8 pages. illus.

"Blackstrap Molasses as a Livestock Feed" by Snell, Upp. and Lush - Louisiana Experiment Station Circular No. 19. Jan. 1937. 4 pages.

"Cottonseed Meal Ration and Silage Versus Herd Ration, Hay, and Silage" by R. H. Lush - Louisiana Experiment Station Bulletin No. 278. Oct. 1936. 7 pages.

"Permanent Pastures for Cattle Production in the Rice Area of Southwestern Louisiana" by J. Mitchell Jenkins - Louisiana Experiment Station Bulletin No. 276. Oct. 1936. 7 pages.

"Production and Feeding of Early Lambs" by Wells E. Hunt - Maryland Experiment Station Bulletin No. 398. July 1936. 5 illus. 18 tables. 75 pages.

"Fattening Beef Calves" by G. A. Branaman - Michigan Experiment Station Special Bulletin No. 280. Dec. 1936. 48 pages. 11 illus. 20 tables.

State (Cont'd.)

"The Vaccinal Immunization of Cattle for Bang's Disease" by Meyer and Huddleson - Michigan Experiment Station Technical Bulletin No. 153. Nov. 1936. 25 pages. 6 tables.

"Feeding Cottonseed Products to Beef Cattle" compiled under direction of C. F. Clark - Mississippi Experiment Station Bulletin No. 317. Oct. 1936. 88 pages. 63 tables.

"Comparison Between Efficiency of Horse, Man, and Motor, With Special Reference to Size and Monetary Economy" by Brody and Cunningham - Missouri Experiment Station Research Bulletin 244. Sept. 1936. 66 pages. Graphs and tables.

"Grazing Districts in Montana: Their Purpose and Organization Procedure" by M. H. Saunderson - Montana Experiment Station Bulletin No. 326. Sept. 1936. 12 figures. 4 tables.

"A Study of the Trends of Montana Livestock Numbers, Prices, and Profits" by M. H. Saunderson - Montana Experiment Station Bulletin No. 329. Nov. 1936. 20 pages. 17 figures.

"The Heat Production of the Sheep and the Pig Before and After Castration" by Ritzman, Colovos and Benedict - New Hampshire Experiment Station Technical Bulletin No. 64. May 1936. 24 pages.

"Grinding Corn for Swine" by McCarty, et al. - Pennsylvania Experiment Station Bulletin No. 326. 1936. 11 pages. 3 figures.

"Feed Grinding - What feed, Why, When, How Fine" by G. Bohstedt - Wisconsin Extension Service Circular 286. Nov. 1936. 16 pages. 3 illus.

"Winter Feeding After the 1936 Drought" by G. Bohstedt - Wisconsin Special Circular. Feb. 1937. 4 pages.

"Sugar Beet By-Products for Fattening Lambs" by A. S. Ingraham - Wyoming Experiment Station Bulletin 216. 1936. 20 pages. 1 figure.

Other

"Percheron Review, 1937" published annually by Percheron Horse Association of America, 9 Dexter Park Ave., Union Stock Yards, Chicago, Ill. 56 pages. Illus.

"Preventable Losses in Marketing Live Stock" published by National Live Stock Loss Prevention Board, 700 Exchange Bldg., Union Stock Yards, Chicago, Ill.

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